

Attorney Docket No.
COE-566

PATENT APPLICATION
Serial No. 10/715,430

REMARKS

5 Applicants appreciate Examiner's thorough review of the application. The full claim set as amended in the previous response has been included for Examiner's convenience in reviewing this response. Applicants have amended Claim 1 herein. No new material has been added. Reconsideration of the application is respectfully requested.

10 To assist in reviewing Applicants' response: where Applicants have quoted Examiner's office action, the quoted material is single-spaced and indented and Applicants' response to Examiner's concerns is in bold print.

Under "Claim Rejections – 35 U.S.C. 103" of the office action, Examiner quotes 35 U.S.C. § 103(a) and states:

15 Claims 1, 3, 6, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlander (U. S. patent no. 2,036,123) in view of Borland (U. S. patent no. 5,369,926).

As to claim 1, DAHLANDER discloses a method of creating a barrier (3) to fluid flow at least from below concrete surfaced flooring placed above an earthen surface, comprising:

20 placing a first layer of concrete;
applying at least one layer of adhesive material (4) to the top surface of said first layer of concrete, said at least one layer of said adhesive material (4) to include a topmost layer of said adhesive material (4);

25 placing multiple panels (sheet metal strips 10, 10...) at least one of said panels (sheet metal strips 10, 10...) incorporating at least one layer of non-porous material (metal, see page 1, second column, lines 14-26) upon said topmost layer of said adhesive material (4),
30 overlapping edges of said panels (10, 10...) with edges of any said panels (10, 10...) placed adjacent thereto (see Figs. 2, 4 and 5), wherein said panels (10, 10...) completely cover said topmost layer of said adhesive material (4);

35 sealing all said overlapped edges (see either Fig. 4 and page 2, first column, lines 7-21 or Fig. 5 and page 2, first column, lines 22-31);
and

emplacing at least one flooring structure/wear surface (2) upon said panels (10, 10...) such that said panels (10, 10...) are confined

Attorney Docket No.
COE-566

PATENT APPLICATION
Serial No. 10/715,430

5 below said flooring structure/wear surface (2) and above said
topmost layer of said adhesive material (4),
wherein the step of placing said panels (10, 10...), the step of
sealing said overlapped edges of said panels (10, 10...) and the
step of emplacing said flooring structure/wear surface (2)
completes said barrier (3).

10 DAHLANDER fails to explicitly disclose that the step of emplacing
the at least one flooring structure/wear surface includes emplacing a second
layer of concrete upon said panels (10, 10...) such that said panels (10,
10...) are confined below said second layer of concrete and above said
topmost layer of said adhesive material (4), wherein the step of placing said
panels (10, 10...), the step of sealing said overlapped edges of said panels
15 (10, 10...) and the step of emplacing said second layer of concrete
completes implementation of said barrier (3).

BORLAND discloses a flooring structure having a bottom concrete
base deck (10) below a waterproof membrane (20) which may be attached
to the concrete base deck (10) and having a topmost concrete wearing slab
(50).

20 It would have been obvious to one of ordinary skill in the art at the
time the invention was made to modify the method of implementing a
barrier to fluid flow in at least one direction of DAHLANDER by making
the topmost wear layer be made of concrete as taught by BORLAND in
order to provide better wearing characteristics since concrete is a material
25 strong in compression.

It is not clear that the Examiner has performed a proper *Graham* analysis in
analyzing Applicants' application. Performing a *Graham* analysis is the appropriate
method for determining obviousness. *KSR International Co. v. Teleflex Inc. et al.*,
30 550 US _____ (2007). Further as emphasized in *KSR*:

Often, it will be necessary for a court to look to interrelated teachings of
multiple patents; the effects of demands known to the design community
or present in the marketplace; and the background knowledge possessed
by a person having ordinary skill in the art, all in order to determine
35 whether there was an apparent reason to combine the known elements
in the fashion claimed by the patent at issue. To facilitate review, this
analysis should be made explicit. See In re Kahn, 441 F.3d 377, 988
(CA Fed. 2006) ("[R]ejections on obviousness grounds cannot be
sustained by mere conclusory statements; instead, there must be some
40 articulated reasoning with some rational underpinning to support the

Attorney Docket No.
COE-566

PATENT APPLICATION
Serial No. 10/715,430

legal conclusion of obviousness"). As our precedents make clear, however, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ. (emphasis added). Id.

Justice Kennedy continues:

Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known. Id.

Further, Justice Kennedy states:

There is no necessary inconsistency between the idea underlying the TSM test and the Graham analysis. Id.

The Graham analysis provides that:

1. The scope and content of the prior art are determined.
2. Differences between the prior art and the claims at issue are ascertained.
3. The level of ordinary skill in the pertinent art is resolved.
4. Secondary considerations are pursued, including, but not limited to:
 - a. commercial success.
 - b. long felt but unsolved needs.
 - c. failure of others to solve the problem addressed by the invention.
 - d. teaching away from the current solution.

Applicants respectfully disagree that it would have been obvious to one of ordinary skill in the art to apply the *Borland* method of sealing decking, a method

Attorney Docket No.
COE-566

PATENT APPLICATION
Serial No. 10/715,430

that specifically affords "drainage channels" (Fig. 1) in an insulation layer under the wear layer to achieve the same protection as Applicants' invention, but not in the same applications. Consider that the *Borland* method applies to decking that is not adjacent an earthen base, else how could the drainage channels be employed for

5 "decking" as described in the specification of *Borland*? Further, in the 58 years between the *Dahlander* and *Borland* patents, the same means of sealing concrete "slabs" as detailed by *Dahlander* has been used with little variation in providing a top sealing surface for a concrete slab above an earthen surface. Thus, Applicants' invention addresses a "long felt" need not filled by *Borland* or anyone else in the

10 twelve plus years since the *Borland* patent issued. Otherwise, why would *Borland* incorporate not one, but two, specifically enumerated foamed insulation drainage channels when Applicants' invention would have provided waterproofing protection from moisture intrusion from below in a much more compact and less costly solution? Nonetheless, to further clarify a primary purpose of Applicants' invention, Applicants have currently amended Claim 1, upon which all remaining

15 claims depend, to indicate that the first concrete portion is installed over an earthen surface and the moisture barrier is for intrusion of water from below the concrete slab, not for water intrusion from above as provided for by *Borland* in describing a deck design above an at least partially open volume. Further, if one were to use the technique of *Borland* combined with that of *Dahlander*, one would have included the drainage channels of *Borland* in a thick insulation layer for the design. However, the *Borland* design is not optimized for waterproofing against moisture intrusion from below the deck but rather for insulating and draining water intrusion from above. Insulation is not required (nor desired) in Applicants' invention so one of

20 ordinary skill in the art would not have related the two distinctly separate patents of *Dahlander* and *Borland*. Further, there was a period of 58 years between the two patents (*Dahlander* and *Borland*) during which one "skilled in the art" could have developed Applicants' invention to address the long standing problem of "damp concrete floors" should it have been truly "obvious." Additionally, in the twelve

25 years between the existence of the "combination" of the *Dahlander* and *Borland* patents and Applicants' present invention, no one has proposed Applicants' non-

30

Attorney Docket No.
COE-566

PATENT APPLICATION
Serial No. 10/715,430

obvious solution although the need has existed at least since the original *Dahlander* patent issued 71 years ago. See, for example, recent United States patent no. 7,096,630, *Composite Tangled Filament Mat with Overlying Liquid Moisture Barrier for Cushioning and Venting of Vapor, and for Protection of Underlying Subfloor*, to Keene et al., August 29, 2006, for "a composite mat and sheet structure for installation atop a subfloor to underlie a layer of hardenable, cementitious material such as gypsum concrete or Portland concrete that is poured atop the composite structure to harden in situ." (emphasis added). As with the *Borland* patent, the *Keene* patent protects from water intrusion from above, specifically allowing for water vapor to transit from below the top surface.

Examiner further states:

As to claim 2, DAHLANDER in view of BORLAND discloses the method of claim 1 as discussed above and DAHLANDER also discloses that said panels comprise non-porous material (sheet metal, preferably copper) selected from a group consisting of: a metal, a metal alloy, a steel alloy, a stainless steel, a composite material, a composite material containing at least some metal, and combinations thereof.

Applicants note that Claim 2 is not mentioned above as one of the claims being rejected. Applicants have amended Claim 1 upon which Claim 2 depends to clarify a purpose of Applicants' invention to preclude moisture from entering a concrete slab placed upon an earthen surface. This result cannot be met in the cost effective and straightforward method of Applicants' invention by combining *Borland* with *Dahlander*, thus mooted any argument regarding Claim 2 as applied to currently amended Claim 1. Further, it is not clear that *Dahlander* claims any of the Markush Group that does not comprise a "corrosion free" metal and Applicants are free to utilize the concept of claim differentiation with each independent claim as Applicants see fit.

Examiner further states:

As to claim 3, DAHLANDER in view of BORLAND discloses the method of claim 1 as discussed above and DAHLANDER also discloses that said non-porous material (sheet metal, preferably copper) comprises at least in part a first metal.

Attorney Docket No.
COE-566

PATENT APPLICATION
Serial No. 10/715,430

Applicants have amended Claim 1 upon which Claim 3 depends to clarify a purpose of Applicants' invention that can not be met in the cost effective and straightforward method of Applicants' invention by combining *Borland* with *Dahlander*, thus mooted any argument regarding Claim 3 as applied to currently amended Claim 1. Claim 3 was also amended previously to simplify the claim language. Further, Applicants are free to utilize the concept of claim differentiation with each independent claim as Applicants see fit. Deleting a need for costly insulating material and bulky channels as provided in *Borland* is innovative, non-obvious, and beneficial as well as useful to those desiring an inexpensive solution to waterproofing concrete slabs from moisture intrusion from below.

Examiner further states:

As to claim 6, DAHLANDER in view of BORLAND discloses the method of claim 1 as discussed above.

Neither DAHLANDER nor BORLAND explicitly disclose that the step of applying said second layer (sic, is) at a thickness of about at least 2.5 cm (1.0 inch).

However, it is well settled that changes in size/proportion (i.e., dimensions) do not constitute a patentable difference. See *In re Rose*, 220 F. 2d 459, 105 USPQ 237 (CCPA 1955) (Claims directed to a lumber package "of appreciable size and weight requiring handling by a lift truck" where (sic, were) held unpatentable over prior art lumber packages which could be lifted by hand because limitations relating to the size of the package were not sufficient to patentability distinguish over the prior art). *In re Rinehart*, 531 F. 2d 1048, 189 USPQ 143 (CCPA 1976) ("mere scaling up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled." 531 F. 2d at 1053, 189 USPQ at 148). Further, in *Gardner v. TEC Systems, Inc.*, 725 F. 2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Therefore, it would have been obvious expedient to one of ordinary skill in the art at the time the invention was made of (sic, to) modify the method of creating a barrier to fluid flow of DAHLANDER in view of BORLAND by making the concrete layer be 2.5 cm (1 inch) thick in order to provide a wear surface strong in compression, but relatively thin to save on material cost and since it is well founded that merely changing dimensions is not unobvious (see *Brunswick Corporation v. Champion Spark Plug Company*, 216 USPQ 1 (CA 7, 1982).

Attorney Docket No.
COE-566

PATENT APPLICATION
Serial No. 10/715,430

Applicants have amended Claim 1 upon which Claim 6 depends to clarify a purpose of Applicants' invention that can not be met in the cost effective and straightforward method of Applicants' invention by combining *Borland* with *Dahlander*, thus mooted any argument regarding Claim 6 as applied to currently amended Claim 1. Further, Applicants are free to utilize the concept of claim differentiation with each independent claim as Applicants see fit.

Examiner further states:

As to claim 9, DAHLANDER in view of BORLAND discloses the method of claim 1 as discussed above and DAHLANDER also discloses that the step of providing said panels as at least one plate.

Neither DAHLANDER nor BORLAND explicitly disclose that the at least one plate has a total thickness less than about 6 mm (0.25 inch).

However, it is well settled that changes in size/proportion (i.e., dimensions) do not constitute a patentable difference. See *In re Rose*, 220 F. 2d 459, 105 USPQ 237 (CCPA 1955) (Claims directed to a lumber package "of appreciable size and weight requiring handling by a lift truck" where (sic, were) held unpatentable over prior art lumber packages which could be lifted by hand because limitations relating to the size of the package were not sufficient to patentability distinguish over the prior art). *In re Rinehart*, 531 F. 2d 1048, 189 USPQ 143 (CCPA 1976) ("mere scaling up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled." 531 F. 2d at 1053, 189 USPQ at 148). Further, in *Gardner v. TEC Systems, Inc.*, 725 F. 2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Therefore, to make the at least one plate have a total thickness less than about 6 mm (.25 inch) would have constituted an obvious expedient to one of ordinary skill in the art at the time the invention was made in order to provide strength, yet save on material costs and since it is well founded that merely changing dimensions is not unobvious (see *Brunswick Corporation v. Champion Spark Plug Company*, 216 USPQ 1 (CA 7, 1982).

Applicants have amended Claim 1 upon which Claim 9 depends to clarify a purpose of Applicants' invention that can not be met in the cost effective and straightforward method of Applicants' invention by combining *Borland* with *Dahlander*, thus mooted any argument regarding Claim 9 as applied to currently

Attorney Docket No.
COE-566

PATENT APPLICATION
Serial No. 10/715,430

amended Claim 1. Further, Applicants are free to utilize the concept of claim differentiation with each independent claim as Applicants see fit.

Examiner further states:

5 As to claim 12, DAHLANDER in view of BORLAND discloses the method of claim 1 as discussed above, and DAHLANDER also discloses that (sic) the step of providing the panels as at least one foil.

However, Dahlander fails to explicitly disclose that the at least one foil has a thickness less than about 1 mm (40 mil).

10 However, it is well settled that changes in size and/or proportion between the invention and the prior art do not constitute a patentable difference. See *In re Rose*, 220 F. 2d 459, 105 USPQ 237 (CCPA 1955) (Claims directed to a lumber package "of appreciable size and weight requiring handling by a lift truck" where held unpatentable over prior art lumber packages which could be lifted by hand because limitations relating to the size of the package were not sufficient to patentability distinguish over the prior art). *In re Rinehart*, 531 F. 2d 1048, 189 USPQ 143 (CCPA 1976) ("mere scaling up of a prior art process capable of being soaked up, if such were the case, would not establish patentability in a claim to an old process so scaled." 531 F. 2d at 1053, 189 USPQ at 148). Further, in *Gardner v. TEC Systems, Inc.*, 725 F. 2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

25 Therefore, to make the at least one plate be a foil (i.e., very thin sheet metal) having a total thickness less than about 1 mm (40 mils) would have constituted an obvious expedient to one of ordinary skill in the art at the time the invention was made in order to be able to provide the waterproofing function, yet remain as thin as possible to save on material costs and since it is well founded that merely changing dimensions is not unobvious (see *Brunswick Corporation v. Champion Spark Plug Company*, 216 USPQ 1 (CA 7, 1982).

35 Applicants have amended Claim 1 upon which Claim 12 depends to clarify a purpose of Applicants' invention that can not be met in the cost effective and straightforward method of Applicants' invention by combining *Borland* with *Dahlander*, thus mooted any argument regarding Claim 12 as applied to currently amended Claim 1. Further, Applicants are free to utilize the concept of claim differentiation with each independent claim as Applicants see fit.

Attorney Docket No.
COE-566

PATENT APPLICATION
Serial No. 10/715,430

For Applicants' invention, the "second (wear) layer" is the same type of material, i.e., concrete, as the first layer. (See, for example, p. 7, lines 15-18). Applicants' invention provides a monolithic structure and, in addition to serving as a moisture barrier, Applicants' barrier serves as reinforcing structure (as indicated in currently amended Claim 1) to the monolith, much as a metal screen or rebar does. Further, this reinforcing function occurs near the top of the monolith at the location where it is most helpful to address external stress on the monolith. This capability is not available in either the *Borland* or *Dahlander* patents, alone or in combination.

Under a second section Examiner states:

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlander (U. S. patent no. 2,036, 123) in view of BORLAND (United States patent no. 5,369,926), as applied to claim 1 above, and further in view of BEAN ET AL. (U. S. patent no. 6,286,279).

As to claim 5, Dahlander in view of BORLAND discloses the method of claim 1 as discussed above.

Neither DAHLANDER nor BORLAND explicitly disclose that said adhesive material comprises at least in part a thin set mortar at a thickness of about 6 mm (0.25 inch).

BEAN ET AL. teach the use of an adhesive layer (18) of a Portland cement-based adhesive to bond a steel foil (12) to concrete (C). However, Bean et al. does not explicitly disclose (sic) that the adhesive layer is about 6 mm (.24 inch).

However, it is well settled that changes in size and/or proportion between the invention and the prior art do not constitute a patentable difference. See *In re Rose*, 220 F. 2d 459, 105 USPQ 237 (CCPA 1955) (Claims directed to a lumber package "of appreciable size and weight requiring handling by a lift truck" where held unpatentable over prior art lumber packages which could be lifted by hand because limitations relating to the size of the package were not sufficient to patentability distinguish over the prior art). *In re Rinehart*, 531 F. 2d 1048, 189 USPQ 143 (CCPA 1976) ("mere scaling up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled." 531 F. 2d at 1053, 189 USPQ at 148.). Further, in *Gardner v. TEC Systems, Inc.*, 725 F. 2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform

Attorney Docket No.
COE-566

PATENT APPLICATION
Serial No. 10/715,430

differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made of (sic, to) modify the method of creating a barrier to fluid flow of DAHLANDER in view of BORLAND by replacing the adhesive (waterproof adhesive, such as asphalt layer 4 – see page 1, second column, lines 28-29) of DAHLANDER in view of BORLAND with the Portland cement-based adhesive as taught by BEAN ET AL. in order to form a bond between the concrete and metal that does not degrade in the presence of moisture and alkalinity, and to make the adhesive layer 6 mm (0.25 inches) thick would have constituted a further obvious expedient to one having ordinary skill in the art at the time the invention was made since it is well founded that merely changing dimensions is not unobvious (see *Brunswick Corporation v. Champion Spark Plug Company*, 216 USPQ 1 (CA 7, 1982).

Please note comments to Examiner's Claim 1 rejection. As noted above, Applicants have herewith amended Claim 1 to put it in condition for allowance and Claim 5 depends on Claim 1 directly.

Examiner further states:

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over DAHLANDER (U. S. patent no. 2,036, 123) in view of BORLAND (United States patent no. 5,369,926), as applied to claim 1 above and further in view of SCHIRMER (U. S. patent no. 4,155,209).

As to claim 7, DAHLANDER in view of BORLAND discloses the method of claim 1 as discussed above.

Neither DAHLANDER nor BORLAND explicitly disclose that the step of sealing said overlapped edges is done at least in part by applying a continuous bead of at least one sealant along the entire length between each said overlapped edge, wherein said sealant remains flexible upon curing.

SCHIRMER discloses a fluid-sealed sheet metal joint wherein the step of sealing said overlapped edges is done at least in part by applying a continuous bead of at least one sealant along the entire length between each said overlapped edge, wherein said sealant remains flexible upon curing (see col. 3, lines 18-49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made of (sic, to) modify the method of implementing a barrier to fluid flow of DAHLANDER in view of BORLAND by replacing the sealant (sealing wire (11) or sealing ribbon 14) of DAHLANDER with the flexible room temperature vulcanizing (RTV) sealant taught by SCHIRMER in order to provide a waterproof joint that

Attorney Docket No.
COE-566

PATENT APPLICATION
Serial No. 10/715,430

will remain so even after being subjected to numerous freeze and thaw cycles (see col. 1, lines 16-25).

**Please note comments to Examiner's Claim 1 rejection. As noted above,
5 Applicants have herewith amended Claim 1 to put it in condition for allowance and
Claim 7 depends on Claim 1 directly.**

Examiner further states:

10 As to claim 8, Dahlander in view of BORLAND and SCHIRMER
discloses the method of claim 7 as discussed above, and SCHIRMER also
discloses that a room temperature vulcanizing (RTV) sealant (see col. 3,
lines 18-49) is employed as said at least one sealant.

15 **Please note comments to Examiner's Claim 1 rejection. As noted above,
Applicants have herewith amended Claim 1 to put it in condition for allowance and
Claims 8 depends on Claim 1 indirectly via Claim 7. Applicants reference
discussion on 35 U.S.C § 103 (a) requirements as provided in their response to the
first Office Action and incorporate them herein.**

20 Under "Response to Arguments" of the office action, Examiner states:

Applicants' arguments filed 07 December 2006 and 26 March 2006
have been fully considered but they are not persuasive.

25 In response to applicant's arguments, the recitation "at least from
below concrete-surfaced flooring placed above earthen surface" has not
been given patentable weight because the recitation occurs in the preamble.
A preamble is generally not accorded any patentable weight where it merely
recites the purpose of a process or the intended use of a structure, and where
30 the body of the claim does not depend on the preamble for completeness
but, instead, the process steps of structural limitations are able to stand
alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and
Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

35 In any event, the resulting method of creating a barrier to fluid flow
from the combination of DAHLANDER in view of BORLAND discloses
"at least from below concrete-surfaced flooring placed above earthen
surface."

Attorney Docket No.
COE-566

PATENT APPLICATION
Serial No. 10/715,430

Applicants have amended the independent Claim 1 making this argument moot. Any inkling of a motivation to combine the cited references with *Dahlander* no longer exists, if it ever did, due to the amendments to the claims made herein. As well, *Borland* was never intended for application over an earthen surface, but rather as decking, although the above cited *Keene et al.* (2006) method is applied on concrete slabs, it does require a "foamed" base which allows moisture to flow from below unlike Applicants' invention.

Continuing in this section, Examiner states:

As to Applicants' argument on page 10, line 25 to 30, of the "Amendment Under 35 U.S.C § 111" filed on 07 December 2006 and repeated on page 10, line 40 to page 11, line 2 of the "Response to Notice of Non-Compliant Amendment 37 CFR § 1.121" filed on 26 March 2007, the examiner notes that the claims do not specifically indicate that moisture will not flow from below. In any event, once a seal is effected, moisture flow will be prevented from either direction.

Applicants have amended the independent Claim 1 making this argument moot. Applicants respectively refer to *Keene et al.* (2006) in which moisture is permitted to flow in one direction and that direction is from the bottom, much like the now ubiquitous GORE-TEX® line of clothing and recreational products.

Continuing in this section, Examiner states:

As for Applicants' remarks concerning BORLAND, the examiner disagrees that the drainage channels need to be included within DAHLANDER. In fact, the insulation of BORLAND is not being included in the examiner's proposed modification.

DAHLANDER and BORLAND are not at all two distinctly separate patents. Both deal with preventing fluid flow through substrates.

Based on the foregoing, the examiner is maintaining her rejections of the claims.

There should be a reason articulated for the combination being "obvious" to one skilled in the art. For over 70 years no one has added a non-porous layer to the ubiquitous concrete slab and then covered that layer with another layer of concrete,

Attorney Docket No.
COE-566

PATENT APPLICATION
Serial No. 10/715,430

although other materials, including "waterproofing" layers as in *Dahlander* have been used for the entire time. The limitation of a concrete first layer upon which a barrier, an adhesive and a concrete top layer are added as claimed in Claim 1 amended herein is not taught by *Dahlander* nor is there a reason inherent from reading any of the cited references to combine these limitations from the references. To be proper, the asserted combination of references can neither render the prior art unsatisfactory for its intended purpose nor change the principle of operation of a reference. For example, there are no drainage channels in Applicants' invention thus water would stand on the top surface denying the application of the *Borland* channels. MPEP § 2143.01.

As discussed above, *Dahlander* fails to teach each and every element recited in amended Claim 1. The Examiner does not assert that *Borland* teaches any of the claimed elements missing from *Dahlander*, relying on *Borland* only to teach the use of a top cover layer of concrete. Applicants have amended Claim 1 previously to indicate that concrete is employed in the final top coating as in the underlayment. Nowhere in any of the cited references is this limitation and further amended Claim 1 herein to indicate application over an earthen surface for preventing upward flow of moisture through the top layer of concrete and as a reinforcing element for the monolithic concrete structure resulting from Applicants' invention. Accordingly, the asserted combination of references fails to teach each and every limitation of the claimed invention, and therefore cannot properly form the basis of a rejection under 35 U.S.C. § 103.

A 35 U.S.C. § 103 rejection presumes that differences exist between the subject matter of appellants' claims and those of the prior art. Else a rejection under §102 would apply. Thus, the examiner must cite something in the prior art that suggests in some way a reason for one skilled in the art to modify a particular reference or to combine one with another reference in order to arrive at the claimed invention. Examiner's reference to *Dahlander* in view of *Borland* does not do this as discussed above.

No new matter has been entered via this amendment. In view of the foregoing, Applicants respectfully request that the subject application be passed to issue as amended

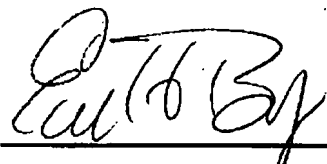
Attorney Docket No.
COE-566

PATENT APPLICATION
Serial No. 10/715,430

hereby with currently amended Claim 1, previously amended Claims 2, 3, 5-7, 9 and 12,
and original Claim 8, all claims now being in proper condition for allowance.

5

Respectfully Submitted,

By: 

10 U.S. Army Corps of Engineers
Humphreys Engineer Center
CEHEC-OC (Kingman Bldg.)
7701 Telegraph Rd.
Alexandria, VA 22315-3860
505 342-3360

EARL H. BAUGHER, JR
Attorney for Applicants
Registration No. 40,905